Keng-Yu Chen

EDUCATION

Master of Science in Computer Science

Sep. 2022 – Jan. 2024

Graduate Institute of Electrical Engineering, National Taiwan University

Thesis Advisor: Jiun-Peng Chen & Ho-Lin Chen

GPA: 4.15/4.3 (3.95/4.0)

Bachelor of Science in Computer Science & Information Engineering

Sep. 2018 – Jun. 2022

Department of Computer Science & Information Engineering, National Taiwan University

GPA: 3.89/4.3 (3.73/4.0)

Last 60 GPA: 4.11/4.3 (3.88/4.0) Major GPA: 4.13/4.3 (3.96/4.0)

(Double Major) Bachelor of Science in Mathematics

Sep. 2018 – Jun. 2022

Department of Mathematics, National Taiwan University

Publication

 Masking Floating-Point Number Multiplication and Addition of Falcon Keng-Yu Chen, Jiun-Peng Chen
IACR Transactions on Cryptographic Hardware and Embedded Systems, 2024

Research Experience

Side-Channel Analysis Laboratory

Jun. 2020 - Feb. 2024

- * Department of Electrical Engineering, National Taiwan University
- * Principal Investigator: Jiun-Peng Chen
- * Researching all topics of side-channel analysis on lattice-based post-quantum cryptography

Adjunct Research Assistant

Sep. 2020 – Oct. 2023

- * Research Center for Information Technology Innovation, Academia Sinica
- * Principal Investigator: Jiun-Peng Chen
- * Studying and implementing side-channel analysis on concrete cryptographic schemes such as Elliptic Curve Cryptography and NTRU Prime key encapsulation mechanism

Research Intern

Jul. 2023 – Aug. 2023

- * Institute of Information Science, Academia Sinica
- * Advisor: Kai-Min Chung
- * Surveying recent research in theoretical cryptography, mostly in instantiability of schemes in the random oracle model, encrypt-then-sign paradigm, and quantum homomorphic encryption

Honors and Awards

Champion — Innovation Application Competition of Digital Twins

Oct. 2022

for Smart Farming

Council of Agriculture, Executive Yuan, Taiwan

Academic Achievement Award

Apr. 2019

Department of Computer Science & Information Engineering, National Taiwan University

Coursework

Relevant Courses

Sep. 2018 – Jun. 2023

- * Introduction to Cryptography (A)
- * Formal Languages and Automata Theory (A)
- * Computer Architecture (A+)
- * Post-quantum Cryptography (A+)
- * Advanced Digital Signal Processing (A+)
- * Theoretical Aspects of Modern Cryptography (A)
- * Advanced Algorithm (A)
- * Quantum Information and Computation (A+)

Working Experience

Teaching Assistant

Sep. 2020 – Jan. 2021

Calculus (1)(2) Teacher: Ya-Ju Tsai

OTHER EXPERIENCE

Attendee — Theory of Cryptography Conference 2023

Nov. 2023

Taipei, Taiwan

Attendee — Asiacrypt 2022

Dec. 2022

Taipei, Taiwan

Attendee — Postquantum Crypto Minischool

Jul. 2022

Academia Sinica, Taiwan

Extracurricular Activity

Public Address (PA) Team

Sep. 2019 – Jun. 2021

- * Student Activity Center, National Taiwan University
- * Operating audio and lighting systems for stage performances at the school's auditorium, including microphones, audio mixers, speakers, and lighting consoles

Equipment Team

Feb. 2019 – Jun. 2021

- * Tainan Alumni Association, National Taiwan University
- * Coping with all the work behind the scenes for stage performances, including stage lighting, audio systems, photography, and videography

Additional Skills

Programming: C/C++, Python, Verilog, Makefile, MATLAB, R

Tools: Git/GitHub, ChipWhisperer, LATEX

Languages: English (IELTS Score: 7.5), Chinese (Native)